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APPLICATION NO.	FI	LING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,946 08/19/2003		08/19/2003	Ting-Fang Wang	03185-UPS	6792
33804	7590	01/18/2006		EXAM	INER
		T SERVICES	BONK, TERESA		
P.O. BOX 23 SARATOGA		5070-0339		ART UNIT	PAPER NUMBER
	-,			3725	<u> </u>

DATE MAILED: 01/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)
	10/644,946	WANG ET AL.
Office Action Summary	Examiner	Art Unit
	Teresa M. Bonk	3725
The MAILING DATE of this comm Period for Reply	unication appears on the cover sheet	with the correspondence address
A SHORTENED STATUTORY PERIOD WHICHEVER IS LONGER, FROM THE  - Extensions of time may be available under the provising after SIX (6) MONTHS from the mailing date of this co.  - If NO period for reply is specified above, the maximum  - Failure to reply within the set or extended period for real Any reply received by the Office later than three month earned patent term adjustment. See 37 CFR 1.704(b)	MAILING DATE OF THIS COMMUN ons of 37 CFR 1.136(a). In no event, however, may symmunication.  In statutory period will apply and will expire SIX (6) MO apply will, by statute, cause the application to become this after the mailing date of this communication, even	NICATION. a reply be timely filed  ONTHS from the mailing date of this communication. ABANDONED (35 U.S.C. § 133).
Status		
1) Responsive to communication(s)	filed on	
2a) This action is <b>FINAL</b> .	2b)⊠ This action is non-final.	
3) Since this application is in condition	<i>'</i> —	atters, prosecution as to the merits is
• • • • • • • • • • • • • • • • • • • •	ctice under Ex parte Quayle, 1935 C.	•
Disposition of Claims		
4) Claim(s) 3 and 4 is/are pending in 4a) Of the above claim(s) is 5) Claim(s) is/are allowed. 6) Claim(s) 3 and 4 is/are rejected. 7) Claim(s) is/are objected to 8) Claim(s) are subject to resi	s/are withdrawn from consideration.	
Application Papers		
	ber $2005$ is/are: a) $\square$ accepted or b) bection to the drawing(s) be held in abeying the correction is required if the drawing	ance. See 37 CFR 1.85(a). ng(s) is objected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119	·	
<ul><li>2. Certified copies of the prior</li><li>3. Copies of the certified copie</li><li>application from the Internal</li></ul>		Application No en received in this National Stage
Attachment(s)		
1) Notice of References Cited (PTO-892)	4) Interview	v Summary (PTO-413)
Notice of Draftsperson's Patent Drawing Review     Information Disclosure Statement(s) (PTO-1449     Paper No(s)/Mail Date	v (PTO-948) Paper No	o(s)/Mail Date  f Informal Patent Application (PTO-152)

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#### **DETAILED ACTION**

### Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
- Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hampton (GB 147779 in view of Yagi et al. (US Patent 4,985,993) and Hale, Jr. et al. (US Patent 6,244,668).
   Hampton discloses a method for shaping a seamless metal wheel rim, comprising the steps of cutting (punched, Column 1, line 43) a plate into a circular plate (circular, sheet metal disc 2);

drawing the circular plate into a cub-shaped embryo body (dish 3) by a deep drawing die having a first end shaped into a cup-shaped cylinder (circular base part 4) and a second end being

shaped into an embryo expansion part (cylindrical, annular, flange part 5 at the external periphery of the part 4), (Column 1, lines 44-47 and Column 2, lines 48-52);

punching out a bottom surface of the cup-shaped cylinder to form a hollow cylinder, (Column 2, lines 52-56).

Hampton completes the shaping of the wheel rim by a pressing operation "to form at respective opposite ends thereof two outwardly directed shallow flanges 6," Column 2, lines 56-59, see Figure 4.

3. Hampton discloses the invention substantially as claimed except for the material to be an aluminum alloy and the cup-shaped embryo being put into an expanding-pressing female die with an expanding die cavity respectively at both ends, and then pressed and expanded by two sets of expanding-pressing male dies respectively at both ends of the embryo body to make the embryo expansion part and the hollow cylinder respectively form a first expansion part and a second expansion part that construct a wheel rim.

Hale, Jr. et al. discloses forming a metal wheel rim using an aluminum alloy. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use an aluminum alloy as the metal material in Hampton's invention because it is the "most commonly" used material for this type of manufacturing process, Column 1, lines 21-24.

Yagi et al. discloses a method for shaping a wheel rim by putting the cup-shaped embryo (cylindrical body A) into an expanding-pressing female die with an expanding die cavity respectively at both ends (16a1 and 16a2 forming surfaces; also See Figure 3) thereof, and then pressed and expanded by two sets of expanding-pressing male dies respectively at both ends of the embryo body (2 and 4 dies, 2a and 4a forming surfaces; also See Figure 3) to make the

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embryo expansion part and the hollow cylinder respectively form a first expansion part and a second expansion part that construct a wheel rim (H). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use Yagi et al.'s method of expanding instead of Hampton's pressing process to finish constructing the wheel rim in order to improve its manufacturing efficiency (Column 2, lines 35-36).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hampton in view of Yagi et al. in further view of Hale, Jr. et al. The combination of Hampton and Yagi et al. discloses the invention substantially as claimed except for the thickness of the aluminum alloy plate. Hale, Jr. et al teaches that is known to use aluminum with a thickness of 6 mm when making a wheel rim. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was make to use 6 mm aluminum, as taught by Hale Jr. et al, since he states at Column 5, lines 27-31 that such a modification improves the wheel rim.

## Response to Arguments

5. Applicant's arguments with respect to claims 1-2 have been considered but are moot in view of the new ground(s) of rejection.

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#### Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Teresa M. Bonk whose telephone number is (571) 272-1901. The examiner can normally be reached on M-F 7:30AM - 5PM with alternating Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Derris Banks can be reached on (571) 272-4419. The fax phone number for the organization where this application or proceeding is assigned is 571-273-9900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Teresa M. Bonk Examiner Art Unit 3725

> DERRIS H. BANKS SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 3700